

## STATEMENT OF LEGAL AND FACTUAL BASIS

Volvo Trucks North America, Inc.  
State Route 643  
Dublin, Virginia  
Permit No. VA-20765

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Volvo Trucks North America has applied for a Title V Operating Permit for its facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: \_\_\_\_\_ Date: April 9, 2003

## **FACILITY INFORMATION**

### Permittee

Volvo Trucks North America, Inc.  
7900 National Service Road  
Greensboro, NC 27402

### Facility

Volvo Trucks North America, Inc.  
State Route 643  
Dublin, VA 24084

AIRS ID No. 51-155-0041

## **SOURCE DESCRIPTION**

SIC Code: 3713

Volvo Trucks North America, Inc. is a producer of heavy duty trucks located in Pulaski County on state route 643 near Dublin, Virginia. Volvo presently produces heavy duty trucks by two methods, on site assembly including painting of the entire cab, and assembly of a pre-painted cab on a chassis fabricated and painted at the facility. Under the planned expansion, Volvo anticipates a large reduction of pre-painted units with a corresponding increase of cabs assembled and painted at the facility. In conjunction with their superseded January 22, 1999 permit, Volvo has formalized an ongoing extensive recordkeeping procedure to document the coating usage at the facility. A computer database has been developed to track the amount of each type of paint or coating used at each plant operation, the amount, if any, returned to storage, and the amount sent to off-site waste disposal. From this database, Volvo prepares a monthly material balance of the total consumption of coatings, VOCs, and paint particulate as well as a monthly consumption of all air toxics. This permit will extend that recordkeeping to include all Hazardous Air Pollutants. The monthly emissions are then estimated based on the operational area where the consumption occurred and the capture efficiency and the efficiency of emission controls for that operational area.

The facility is a Title V major source of Volatile Organic Compounds, nitrogen oxides, carbon monoxide, and Hazardous Air Pollutants. This source is located in an attainment area for all pollutants, and is a PSD major source for VOCs. Preliminary to a major plant expansion, all significant emission sources at the facility were included in a permit to modify and construct issued as a Minor NSR Permit on April 29, 1999, either as new sources, modified sources or existing equipment covered by the conditions of the permit. That permit was modified three times to reflect design changes in the later stages of the expansion, with the last revised permit was issued on July 27, 2000, to make the permit conditions consistent with the design revisions.

Following the first issuance of this federal operating permit, the testing required showed that the particulate control requirements for the PC area were too stringent since these were expressed in percentage control and the inlet loading was lower than anticipated. A revised New Source Review permit was issued on February 26, 2003, to include an alternate compliance standard in grains per cubic foot. This permit also increased the particulate limits from the PC area since the original limits were derived from modeling for lead chromate, regulated only under state-only-enforceable regulations. The previous very low limit was based on the assumption of simultaneous lead chromate emissions from both paint lines and the PC area. Volvo has revised its commercial paint formulation eliminating lead chromate. The only lead chromate sources are a Department of Defense contract specifying a lead chromate containing coating and touch-up of pre-painted parts. Since lead chromate is now expected to be present as a worst case in only one paint booth and the PC area, the PC area particulate limits were increased.

The only NSPS, MACT or NESHAP requirements which presently apply to this facility are the NSPS requirements Kb, which requires records of capacity and engineering drawings of some tanks to be retained on site, and Dc, which required notification to USEPA of the installation of a process heater in excess of 10 MMBTU/hr fueled by natural gas. The MACTs for metal and/or plastic coating facilities may apply to this facility when promulgated. This will occur during the present permit period.

## **COMPLIANCE STATUS**

The facility is inspected at least once per year. The facility is in compliance with the State Air Pollution Control Board regulations.

## **EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION**

The emission units are grouped as follows:

Fuel Burning Equipment	All fuel burning equipment with capacity to emit above the insignificant source level. Details in table.
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Manufacturing Equipment	A brief description of each operational unit follows. The emission and control details appear in the table.
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Chassis Assembly (1PE-001 & 1PE-002): This section of the plant assembles the chassis for trucks produced in another section of the plant and for trucks produced at a plant in Ohio. The latter operation is expected to be phased out over the period of this Title V permit. Presently, 80-90% of the chassis are painted with water-based black paint while the rest are painted with high solids solvent based paints. Each line has a spray booth, flash area, bake oven and cooling tunnel. Particulate emissions are controlled, VOC's are not.

Phosphate System (2PE-001): Metal cab components are welded together and the assembled cabs go through a phosphate wash system that applies a 10-step metal pre-treatment and cleaning process

E-Coat (3PE-001): The electrodeposition process involves immersing the cabs in a dip tank with electrically charged base prime paint. The coated trucks are cured in an oven. The oven has a fume incinerator, which is primarily for odor control.

Sealer & Brackett (4PE-001): A sealer for watertight bonds is applied at seams and joints. The sealers are cured in a bake oven.

Primer (5PE-001): Primer is manually applied in a spray booth after which the cab passes through a curing oven and a cooling tunnel.

Washing (6PE-001): Cabs and plastic parts that will be painted before attachment are washed prior to paint application. They proceed through a dry-off oven and clean tunnel.

Touch-Up/Specialty (7PE-001): This is a spray booth where touch-ups prior to painting occur. Volvo anticipates some specialty coating processes may be tested in this booth.

Multi-Tone/Basecoat (8PE-001 and 8PE-002): These spray booths are where the color paint is applied to the cabs. Multi-Tone refers to the process of painting more than one color on a cab. The older booth is controlled for VOCs by a zeolite concentrator and a VOC incinerator. The newer booth uses air recirculation to concentrate VOC fumes prior to control by a VOC incinerator. Both spray booths are followed by heated flash-off areas.

Clearcoat (9PE-001): A clearcoat is applied and the cabs go through a flash-off tunnel and a bake oven.

Final Inspection (10PE-001): The cabs undergo a final inspection. Two spot repair stations are located in this area for very minor touch-up. Cabs requiring extensive touch-up go to the Pre-Conditioning Building.

Rustproof (11PE-001): The final coat is a rust-deterring cavity wax applied to the cab in a dry booth. The cabs are then joined to the chassis.

Central Air (12FBE-001, 12FBE-002, and 12 FBE-003): This section is designated for the main HVAC equipment for the facility.

Pre-Conditioning (13PE-001, 13PE-002, 13PE-003, 13PE-004, and 13PE-005): After final assembly the completed trucks are taken to the Pre-Conditioning Building for final repairs and paint touch-up. Chassis touch-up is done in the 13PE-002 booth and cab touch-up is done in the other booths.

Auxiliary Heating Equipment (14FBE-001, 15FBE-001, 16FBE-001): This is an additional boiler and two air make-up units that will be needed for temperature and humidity control if proposed water-based paints are used. These paints are not presently in use, however, if tests show successful results, these lower VOC coatings are planned for the period of this permit.

## Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Fuel Burning Equipment</b>							
1FBE-001	XXX.1	North Chasis Oven (Direct Fired)	3.0 MMBTU/hr				2/26/03
1FBE-002	NN.1	South Chasis Oven (Direct Fired)	3.0 MMBTU/hr				2/26/03
1FBE-003	WWW.1	North Chasis Air Make-Up Unit	7.56 MMBTU/hr				2/26/03
1FBE-004	MM.1-MM.6	South Chasis Air Make-Up Heater	5.44 MMBTU/hr				2/26/03
2FBE-001/ 6FBE-001	BBB.1	Phosphate Solution/Washer Heater	25.2 MMBTU/hr				2/26/03
3FBE-001	EEE.1	E-Coat Oven w/ incinerator	5** MMBTU/hr	RTO	3PC-01	VOC, Odor	2/26/03
5FBE-001	GGG.5	Primer Oven Zone 1 Burner	3.43 MMBTU/hr				2/26/03
5FBE-002	GGG.6	Primer Oven Zone 2 Burner	2.63 MMBTU/hr				2/26/03
5FBE-003	GGG.7	Primer Oven Zone 3 Burner	2.63 MMBTU/hr				2/26/03
8FBE-001	PPP.3	Multi-Tone/Basecoat Oven – Zone 1 Burner (Booth #1)	3.43 MMBTU/hr				2/26/03
8FBE-002	PPP.4	Multi-Tone/Basecoat Oven – Zone 2 Burner (Booth #1)	2.63 MMBTU/hr				2/26/03
8FBE-003	PPX.1	Multi-Tone/Basecoat Oven – RTO Incinerator Exhaust (Booth #1)	5.0 MMBTU/hr	RTO	8PC-03	VOC	2/26/03
8FBE-004	BFE.1	Multi-Tone/Basecoat Oven – Zone 1 Burner (Booth #2)	3.0 MMBTU/hr				2/26/03
8FBE-005	BFE.2	Multi-Tone/Basecoat Oven – Zone 2 Burner (Booth #2)	5.0 MMBTU/hr				2/26/03
8FBE-006	BFE.3	Multi-Tone/Basecoat Oven – Zone 3A Burner (Booth #2)	3.0 MMBTU/hr				2/26/03
8FBE-007	BFE.4	Multi-Tone/Basecoat Oven – Zone 3B Burner (Booth #2)	3.0 MMBTU/hr				2/26/03

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
8FBE-008	PPX.3	Multi-Tone/Basecoat Oven – RTO Incinerator Exhaust (Booth #2)	5.0 MMBTU/hr	RTO	8PC-05	VOC	2/26/03
9FBE-001	SSS.3	Clearcoat Oven Zone 1	3.43 MMBTU/hr				2/26/03
9FBE-002	SSS.4	Clearcoat Oven Zone 2	2.6 MMBTU/hr				2/26/03
9FBE-003	SSS.6	Clearcoat Oven Zone 3	4.2 MMBTU/hr				2/26/03
12FBE-001	SSS.1&2, MMM.1, GGG.1&2	Central Air Make-Up Heater	56.2 MMBTU/hr				2/26/03
12FBE-002	building air	Make-Up Air Unit # 1 South	8.0 MMBTU/hr				2/26/03
12FBE-003	building air	Make-Up Air Unit # 2 South	9.5 MMBTU/hr				2/26/03
13FBE-001	P.1 - P.6	Truck Repair Oven Exhaust (001)	2.39 MMBTU/hr				2/26/03
13FBE-002	P.5 & P.6	Supply Air Heater – 13PE-001	6.48 MMBTU/hr				2/26/03
13FBE-003	O.1&2	Air Make-Up Heater - 13PE-002	3.89 MMBTU/hr				2/26/03
13FBE-003A	O.3	Air Make-Up Heater - 13PE-002A	3.89 MMBTU/hr				2/26/03
13FBE-004	AAX.1-4	Air Make-Up Heater – 13PE-003	5.21 MMBTU/hr				2/26/03
13FBE-005	Q.1 – Q.4	Air Make-Up Heater – 13PE004	4.68 MMBTU/hr				2/26/03
13FBE-005A	Q.5	Air Make-Up Heater – 13PE004A	4.68 MMBTU/hr				2/26/03
13FBE-006	(indoor vent)	PC Building Heater	0.5 MMBTU/hr				2/26/03
14FBE-001	BBB.2	Burnham Industries Boiler – Humidity Control for 8PE-002	6.3 MMBTU/hr				2/26/03
15FBE-001	PPX.1&2 PPP.1&2	Make-Up Air Unit for Multi-Tone/ Basecoat Booth #1 (8PE-001)	23.5 MMBTU/hr				2/26/03
16FBE-001	PPX.3, PPX.4	Make-Up Air Unit for Multi-Tone/ Basecoat Booth #2 (8PE-002)	12.2 MMBTU/hr				2/26/03
<b>Heavy Truck Manufacturing Process</b>							
1PE-001	MM.1-7	South Chasis Paint Booth		Water Curtain	1PC-01	PM10, TSP	2/26/03
1PE-001A	NN.1	South Chasis Curing Oven					2/26/03
1PE-001B	OO.1	South Chasis Oven Cooler					2/26/03
1PE-002	WWW.1	North Chasis Paint Booth		Venturi Scrubber	1PC-02	PM10, TSP	2/26/03
1PE-002A	XXX.1	North Chasis Curing Oven					2/26/03

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1PE-002B	YYY.1	North Chasis Oven Cooler					2/26/03
2PE-001	AAA.1&2,	Phosphate System					2/26/03
3PE-001	No stack	E-Coat Process					2/26/03
3PE-001A	CCC.1	E-Coat Tunnel					2/26/03
3PE-001B	EEE.1	E-Coat Oven					2/26/03
3PE-001C	DDD.1	E-Coat Oven Cooler					2/26/03
3PE-001D	FFF.2	E-Coat Scuff Station					2/26/03
4PE-001	(no stack)	Seam Sealer/Bracket Attach					2/26/03
4PE-001A	(no stack)	Cab Wipe/Prime Tack-Off					2/26/03
5PE-001	GGG.2	Primer Process – Manual Zone					2/26/03
5PE-001A	GGG.1	Primer Process – Robotic Zone		Venturi Scrubber	5PC-02	PM10, TSP	2/26/03
5PE-001B	GGG.8	Primer Oven Exhaust					2/26/03
5PE-001C	GGG.3	Primer Oven Cooler					2/26/03
6PE-001	JJJ.1	Prep Booth/Sand Booth					2/26/03
6PE-001A	WWE.1	Washing Process					2/26/03
6PE-001B	LLL.1	Dry-Off Area					
7PE-001	MMM.1	Specialty/Touch-Up Painting – Waterborne & High Solids		Venturi Scrubber	7PC-01	PM10, TSP	2/26/03
8PE-001	PPX.1&2 ( PPP.1&2 bypasses)	Multi-Tone/Basecoat Booth # 1 Waterborne & High Solids Coating		Venturi Scrubber, Cartridge Filter, Zeolite Concentrator/ VOC Incinerator	8PC-01, 8PC-02A, 8PC-02, 8PC-03	PM10, TSP, VOC	2/26/03
8PE-001A	PPP.5	Multi-Tone/Basecoat Oven # 1					2/26/03
8PE-001B	PPP.6	Multi-Tone/Basecoat Cooler # 1					2/26/03
8PE-002	PPX.3 (PPX.4 bypass)	Multi-Tone/Basecoat Booth # 2 Waterborne & High Solids Coating		Venturi Scrubber, RTO	8PC-04, 8PC-05	PM10, TSP, VOC	2/26/03
8PE-002A	BOE.1	Multi-Tone/Basecoat Oven # 2					2/26/03
8PE-002B	QQQ.4	Multi-Tone/Basecoat Cooler # 2					2/26/03
8PE-002C	RRR.1	Multi-Tone/Basecoat Booth # 2 Demask Station					2/26/03

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
9PE-001	SSS.1&2	Clearcoat Spray Booth		Venturi Scrubber	9PC-01	PM10, TSP	2/26/03
9PE-001A	SSS.5	Clearcoat Curing Oven					2/26/03
9PE-001B	TTT.3	Clearcoat Cooler # 1					2/26/03
9PE-001C	TTT.5	Clearcoat Cooler # 2					2/26/03
10PE-001, 10PE-002	UUU.1	Final Inspection/Spot Repair Area					2/26/03
11PE-001	VVV.1	Rust Proof		Dry Filter	11PC-01	PM10, TSP	2/26/03
13PE-001	P.1-4	PC Booth # 1: Cab Touch-Up		Water Curtain	13PC-01	PM10, TSP	2/26/03
13PE-001A	P.5 & P.6	PC Booth #1 Oven					2/26/03
13PE-002	O.1&2	PC Booth # 2: Cab Touch-Up		Dry Filter	13PC-02	PM10, TSP	2/26/03
13PE-002A	O.3	PC Booth #2 Oven					
13PE-003	AAX.1-4	PC Booth # 3: Chasis Touch-Up		Dry Filter	13PC-03	PM10, TSP	2/26/03
13PE-004	Q.1-4	PC Booth # 4: Truck Touch-Up		Dry Filter	13PC-04	PM10, TSP	2/26/03
13PE-004A	Q.5	PC Booth #4 Oven					
13PE-005	pending	PC Booth # 5: Truck Touch-Up		Dry Filter	13PC-05	PM10, TSP	2/26/03

\*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

\*\* Based on maximum heat input of RTO



## **EMISSIONS INVENTORY**

Emissions record keeping on the present database was not required until February 1999. To reflect this improved procedure, an amended inventory from January 1999 to December 2000 was requested with the amendments to the original Title V application reflecting the 1999-2000 plant expansion project.

The emissions from the 1999 calendar year are summarized below:

Total VOC Emissions: 260.56 tons

Total NOx Emissions: 23.29 tons

Total SO2 Emissions: 0.38 tons

Total PM-10 Emissions: 7.99 tons

### **Significant HAP Emissions**

Glycol Ethers: 14.15 tons

Toluene: 6.26 tons

## EMISSION UNIT APPLICABLE REQUIREMENTS

### New Source Review Permit Requirements

The majority of conditions contained in the federal operating permit are requirements necessary to comply with the conditions of the New Source Review permit for the facility issued February 26, 2003. A Copy of the permit is attached as Appendix B. The conditions of the federal operating permit and the corresponding conditions of the NSR permit are displayed in the table below:

Title V Condition	NSR Condition	Description	VAC Applicable Requirement
III-A-1	19	Approved fuels are natural gas & propane	9 VAC 5-80-10
III-A-2	20	Natural gas annual throughput limit	9 VAC 5-80-10
III-A-3	23	Combustion product emission limits	9 VAC 5-50-260, 9 VAC 5-170-160
III-A-4	25	Visible emissions limit for ovens and incinerators	9 VAC 5-50-80, 9 VAC 5-170-160
III-A-5	5	Compliance with NSPS Dc	9 VAC 5-50-410
III-C-1a	26g	Monthly and annual consumption of natural gas for entire facility	9 VAC 5-50-50
III-C-1b	26h	Daily, monthly and annual consumption of natural gas for phosphate system heater	9 VAC 5-50-50, (NSPS Dc)
III-C-1c	26l	Monthly and annual emissions from gas and propane combustion for entire facility	9 VAC 5-50-50
III-D-1	32	Provide test ports at appropriate locations on request	9 VAC 5-50-30
IV-A-1	6	BACT as design specifications cited for particulate control devices	9 VAC 5-80-10, 9 VAC 5-50-260
IV-A-2	7	BACT as water-based or high solids coatings in certain applications	9 VAC 5-50-260
IV-A-3	8	BACT as water-based primers	9 VAC 5-50-260
IV-A-4	9	BACT as water-based E-coat	9 VAC 5-50-260
IV-A-5	10	E-Coat oven VOC incinerator requirement	9 VAC 5-80-10, 9 VAC 5-40-140
IV-A-6	11	Basecoat Booth #1 VOC incinerator and instrument requirement	9 VAC 5-80-10, 9 VAC 5-50-260, 9 VAC 5-170-160
IV-A-7	12	Basecoat Booth #2 VOC incinerator and instrument requirement	9 VAC 5-80-10, 9 VAC 5-50-260, 9 VAC 5-170-160
IV-A-8	13	VOC Content limit (lbs/gal) as BACT for spray booths without VOC controls	9 VAC 5-80-10, 9 VAC 5-50-260, 9 VAC 5-50-180
IV-A-9	14	Minimize cleaning & purging emissions	9 VAC 5-40-4780, 9 VAC 5-40-20
IV-A-10	15	Alternative control procedure	9 VAC 5-170-160
IV-A-11	17	Annual VOC throughput limit for coating content	9 VAC 5-80-10, 9 VAC 5-170-160
IV-A-12	18	Monthly VOC throughput limit for coating content	9 VAC 5-80-10, 9 VAC 5-170-160
IV-A-13	21	VOC emission limit for painting/coating for all spray booths combined	9 VAC 5-50-260, 9 VAC 5-170-160
IV-A-14	22	Particulate emission limits for spray booths broken down by operation unit	9 VAC 5-50-260, 9 VAC 5-50-30
IV-A-15	25	Visible emissions limit for spray booths	9 VAC 5-50-80, 9 VAC 5-170-160

Title V Condition	NSR Condition	Description	VAC Applicable Requirement
IV-B-1	10	E-Coat oven VOC incinerator monitoring requirements	9 VAC 5-80-10, 9 VAC 5-40-140
IV-B-2	11	Basecoat Booth #1 VOC incinerator temperature monitoring requirement	9 VAC 5-80-10, 9 VAC 5-50-260, 9 VAC 5-170-160
IV-B-3	11	Basecoat Booth #1 zeolite adsorber VOC detector monitoring requirements	9 VAC 5-80-10, 9 VAC 5-50-260, 9 VAC 5-170-160
IV-B-4	12	Basecoat Booth #2 VOC incinerator temperature monitoring requirements	9 VAC 5-80-10, 9 VAC 5-50-260, 9 VAC 5-170-160
IV-B-5	16	Basecoat Booths particulate control monitoring (pressure differential gauges)	9 VAC 5-80-10, 9 VAC 5-50-20, 9 VAC 5-50-260
IV-C-2	26a	Record monthly and annual consumption of VOC from each operational area	9 VAC 5-50-50
IV-C-3	26b	Record monthly and annual consumption of VOC from painting/coating processes	9 VAC 5-50-50
IV-C-4	26e	Record monthly and annual consumption of paints and coatings from each operational area and entire facility	9 VAC 5-50-50
IV-C-5	26f	Record monthly and annual throughput of trucks for painting and coating	9 VAC 5-50-50
IV-C-6	26i	Record monthly and annual emissions of VOC from painting/coating processes	9 VAC 5-50-50
IV-C-7	26m	Average lbs VOC per gallon of coatings in spray booths without VOC controls	9 VAC 5-50-50
IV-C-8	26n	Records of pressure differential for particulate scrubbers and booths	9 VAC 5-50-50
IV-C-9	26o	Record of VOC concentration in zeolite concentrator exhaust	9 VAC 5-50-50
IV-D-1	32	Provide test ports at appropriate locations on request	9 VAC 5-50-30
IV-D-2	27	Stack testing on request for Basecoat Booth # 1 VOC control system	9 VAC 5-50-30
IV-D-3	28	Stack testing on request for Basecoat Booth # 2 VOC control system	9 VAC 5-50-30
IV-D-4	29	Stack testing on request for E-Coat Oven VOC incinerator	9 VAC 5-50-30
IV-D-5	30	Stack testing on request for particulate control from any or all spray booths	9 VAC 5-50-30
IV-D-6	31	VEEs on request for opacity from any or all spray booths	9 VAC 5-50-30
V-A-1	24	VOC emission limit for entire facility	9 VAC 5-50-260
V-A-2	3	Types of VOC storage permitted	9 VAC 5-20-80
V-A-3	4	Compliance with NSPS Kb	9 VAC 5-50-410
V-A-4	35	Notice of control equipment maintenance	9 VAC 5-20-180
V-A-5	37	Reduction or shutdown to avoid violation	9 VAC 5-20-180
V-A-6	38	Standards for maintenance & operation practices	9 VAC 5-50-20
V-C-2	26c	Record monthly and annual consumption of VOC from miscellaneous sources	9 VAC 5-50-50
V-C-3	26d	Record monthly and annual consumption of VOC from entire facility	9 VAC 5-50-50

Title V Condition	NSR Condition	Description	VAC Applicable Requirement
V-C-4	26j	Record monthly and annual emissions of VOC from miscellaneous sources	9 VAC 5-50-50
V-C-5	26k	Record monthly and annual emissions of VOC from entire facility	9 VAC 5-50-50
V-D-1	32	Provide test ports at appropriate locations on request	9 VAC 5-50-30
VIII-F	36	Malfunction causing exceedence report	9 VAC 5-20-180
VIII-O	41	Registration/update	9 VAC 5-170-60, 9 VAC 5-20-160
VIII-R	34	Right of entry	9 VAC 5-170-130
VIII-T	42	Permit Copy	9 VAC 5-170-160
VIII-U	40	Change of ownership	9 VAC 5-80-10
VIII-V	39	Permit suspension/revocation	9 VAC 5-80-10
NA	33	Obsolete condition on timely completion	
NA	46-49	State-Only Requirements*	

\* Title V permit imposes additional record keeping for those HAPs which are not limited under state toxics rules under authority to require records of emissions of all pollutants for which the facility is a major source (9 VAC 5-80-110).

### Emission Inventory Related Requirements

The permit content requirements of the regulations for federal operating permits, 9 VAC 5-80-110, state that the permit should include conditions necessary determine the annual emissions of all pollutants for which the facility has the potential to be major. This coincides with the underlying philosophy of the Title V legislation which had as one of its purposes to achieve a more detailed picture of emissions from major source facilities. The table below summarizes the conditions that are needed to develop emission estimates for Hazardous Air Pollutants. One condition corresponds to a condition in the State-Only Enforceable Requirements section of the NSR permit. The condition of this permit modifies that condition to require record keeping on all HAPs rather than only those HAPs in excess of Virginia toxic emissions exemptions. The corresponding NSR condition is noted in parentheses.

Permit Condition	Relation to Emission Inventory
IV-C-1, V-C-1	Requirement to determine material VOC content by EPA approved standards
V-C-6	Emission of HAPs from the facility as a whole (46g)

### **Proper Equipment Operation**

It is the practice of the Virginia Department of Environmental Quality to require in emission permits conditions that the emission sources, such as fuel burning equipment, be operated in a proper manner. These conditions fall into two categories. The first category is a general condition requiring proper operation and maintenance of equipment which applies under 9 VAC 5-170-160 for equipment in a NSR permit or existing equipment ancillary to the operation of the permitted equipment. The second category is specifications that equipment designed to operate under specific parameters be operated only under those parameters. These conditions are specifically addressed under 9 VAC 5-80-10 for equipment in a construction permit but for existing equipment in an operating permit that is not subject to a construction permit, 9 VAC 5-170-160 is the requirement generally deemed to be applicable. Similar conditions were omitted from the Volvo permit as being extraneous during discussion of the draft permit. They are being included in the Title V permit to further justify that record keeping and emission estimates based on fuel usage will be sufficient to demonstrate compliance with emission limits for combustion products. The basis of the combustion products emission limits in the NSR permit was the use of emission factors for natural gas at the maximum throughput limit, assuming properly operating equipment. As such, periodic stack testing of the combustion equipment seems unduly burdensome and these conditions are intended to demonstrate that the monthly emissions estimates are adequate to satisfy periodic monitoring requirements for this operating permit.

Condition III-A-6 is a general condition for proper operation of boilers, HVAC systems and air make-up heaters.

Condition III-B-1 is a requirement to maintain records and procedures supporting compliance with Condition III-A-6.

Taken together with the fuel usage conditions, these conditions define a scenario in which the proper operation of the combustion equipment at this facility are physically incapable of violating the particulate matter and sulfur dioxide standards for fuel burning equipment, 9 VAC 5-40-900 and 9 VAC 5-40-930. Using these conditions allows the permit to be written without explicit limits for SO<sub>2</sub> and PM from combustion sources, and to use emission estimates rather than stack tests for compliance assurance as discussed above.

### **Standard Testing Methods**

It is the practice of the agency to reference the appropriate USEPA test methods for testing done in addition to monitoring explicitly specified in federal operating permits. Conditions III-D-2 and IV-D-7 summarize the appropriate test methods.

### **Periodic Monitoring**

The permit content requirements of the regulations for federal operating permits, 9 VAC 5-80-110, state that the permit should include conditions for periodic monitoring sufficient to demonstrate that the facility is in compliance with the limits of the permit. Except for performance assurance of the zeolite concentrator discussed below, the record keeping requirements are deemed sufficient to determine compliance with the emission limits for VOCs and combustion gasses. Record keeping for painting and coating and compliance with opacity limits is considered sufficient to demonstrate compliance with the emission limits for PM and PM-10. No opacity is expected to be observed under normal operation of the equipment. Under these conditions, a weekly Method 22 evaluation with requirement for Method 9 evaluation if opacity is observed is deemed sufficient to satisfy the periodic monitoring requirement.

Condition IV-D-2 requires performance testing of the zeolite concentrator at least once in each twenty-four month period, both to confirm the VOC detector measurements and to determine if aging of the zeolite has changed the emission estimates for HAPs since some of the HAPs, particularly methanol, are not well adsorbed on zeolite.

Condition V-B-1 requires Method 22 evaluation of the incinerators and spray booths and, if opacity is observed, documentation of corrective action or a Method 9 evaluation to show the opacity is within permit limits.

Condition V-C-7 requires that records of the periodic monitoring results be maintained.

### **Streamlined Requirements**

Emission limits for particulate matter for fuel burning equipment apply only to the 6FBE-001 Wash Solution heater under the definition of fuel burning equipment or fuel burning installation. VDEQ contends that the gaseous fuel usage restriction and the good operating practice requirement for this unit is sufficient to create a de facto emission limit more stringent than the limit under 9 VAC 5-40-900.

### **Excluded NSR Requirements**

One condition other than State-Only Requirements from the NSR were not included for reasons specified below:

Condition 33: Permit invalidation condition requiring a new permit if construction is discontinued for 18 months or not completed in a reasonable time. The project was not discontinued and completed in a reasonable time. (This condition was not removed in the NSR revision due to oversight.)

## **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within one business day.

## **STATE-ONLY APPLICABLE REQUIREMENTS**

The permittee elected to exclude such requirements from this permit. A portion of the record keeping provisions of this section are still required under this permit as a subset of the HAPs record keeping requirements under 9 VAC 5-80-110.

## INSIGNIFICANT EMISSION UNITS

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
FBAD-1	Cleaver Brooks boiler, Model CB-60HP, n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	2,500,000 BTU/hr
FBAD-2	Lochinvar water heater, CNA 726-080-0F9, n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	725,000 BTU/hr
FBBIW2A, FBBIW2B	Two PVI Water Heaters, n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	399,000 BTU/hr each
FBBIW1A FBBIW1H	Eight HV Space Heating Units, n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	3,000,000 BTU/hr each
WELD	Portable welders for equipment maintenance	9 VAC 5-80-720A	PM, CO, SO <sub>2</sub> , NO <sub>x</sub>	NA
PW1-PW5	Five cold cleaner parts washers	9 VAC 5-80-720B	VOC	VOC < 5 tpy
PMSB-1	One small paint spray booth for test panels	9 VAC 5-80-720B	VOC	VOC < 5 tpy
PMBT1-8	Eight 175 gallon bulk tanks for paint/solvent	9 VAC 5-80-720B	VOC	VOC < 5 tpy
FBAB1A – FBAB1I	Nine Door Heaters	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	475,200 BTU/hr to 1,900,800 BTU/hr
FBAB2A-FBAB2CC	Twenty-Nine HV Space Heating Units, n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	302,400 BTU/hr to 3,460,000 BTU/hr
FBAB3A, FBAB3B	Two Air Houses for space heating, n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	6,804,000 BTU/hr each
FBAB4	Assembly Bldg Boiler	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	3,600,000 BTU/hr
FBAB5A-FBAB5F	Six MAU Space Heating Units, n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	3,024,000 BTU/hr each
FBAB6A, FBAB6B	Two MAU Space Heating Units, n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	1,814,400 BTU/hr each
FBSB1A, FBSB1B	Two HV Space Heating units, n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	3,456,000 BTU/hr total
FBWTB	Dyno Water Test Unit	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	388,800 BTU/hr
FBPC1A – FBPC1D	Four HV Space Heating units, n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	8,294,400 BTU/hr total
FBPC2A-FBPC2F	Six IR Door Heaters, unvented	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	75,000 BTU/hr each
FBPC3A, FBPC3B	Two HV Unit MUA 021, 022	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	2.203 MMBTU/hr each



Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
FBPC4	Old Chassis Booth MUA 023	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	5.5 MMBTU/hr
FBPC5A-FBPC5L	Eleven Dravo Door Heaters	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	475,200 BTU/hr – 1,900,800 BTU/hr
FBPC6	One ENG-A HV unit	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	2.112 MMBTU/hr
FBDF1A – FBDF1O	Fifteen IR Door Heaters (vented)	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	75,000 BTU/hr each
FBDF2A, FBDF2B	Two Building MUA	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	4.0 MMBTU/hr each
WWTP-1, WWTP-2	Two waste water treatment plants - batch	9 VAC 5-80-720B	VOC	VOC < 5 tpy
WWTF1A-WWTF1C	Three Building Gas Unit Heaters	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	150,000 BTU/hr each
WWTF2	One Office HVAC	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	45,000 BTU/hr
BIWW1A-BIWW1M	Thirteen IR Door Heaters (vented)	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	75,000 BTU/hr each
BIWW2A-BIWW2I	Nine Building MUA	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	2.25 MMBTU/hr each
ASW1A – ASW1CC	Twenty-Nine IR Door Heaters (vented)	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	75,000 BTU/hr each
ASW2	One HVAC Unit	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	250,000 BTU/hr
ASW3A – ASW3L	Twelve Building MUA	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	2.25 MMBTU/hr each
FBNBW1	HV Unit, n.g	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	625,000 BTU/hr
FBNBW2	HV Unit, n.g	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	842,000 BTU/hr
FBNBW3	Trane HV Unit, n.g	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	500,000 BTU/hr
FBNWB4A FBNWB4C	Three Trane HV Units, n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	250,000 BTU/hr each
FBNWB5A FBNWB5H	Eight dock heaters n.g.	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	91,200 BTU/hr each
FBNWB6A FBNWB6H	Eight MUA 002-009	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	3.127 MMBTU/hr each
FBNWB7A FBNWB7H	Eight HV Units 013-020	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	5.5 MMBTU/hr each
FBNWB8A FBNWB8C	Three HV Units 010-012	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	4.59 MMBTU/hr each
FBNWB9	One HV Unit 024	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	3.4 MMBTU/hr
FBNWB10 A&B	Two 40 ton HVAC Units	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	1.062 MMBTU/hr each
FBNWB11	One 60 ton HV Unit	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	885,000 BTU/hr
FBNWB12 A-D	Four PAC units	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	123,600 BTU/hr to 545,900 BTU/hr
FBNWB13 A&B	Two water heaters	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	412,000 BTU/hr each

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
FBNWB14 A, B & C	Three PAC Units	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	1.318 MMBTU/hr - 1.54 MMBTU /hr
FBNWB15 A, B & C	Three PAC Units	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	64,890 BTU/hr to 735,420 BTU /hr
FBNWB16 A-O	Fifteen Door Heaters	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	77,250 BTU/hr each
FBNWB17 A & B	Two Paint Dock Door Heaters	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	226,000 BTU/hr each
FBNWB18	One Door Heater	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	875,000 BTU/hr
FBNWB19 A & B	Two Direct Fired Burners	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	8.24 MMBTU/hr each
FBNWB20	One MUA	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	659,200 BTU/hr
FORKLIFT	Forty-Two Gas Powered Forklifts	9 VAC 5-80-720A	PM, CO, VOC, NO <sub>x</sub>	NA
PDSL001	Diesel Fuel Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
EGEN	Emergency Generator, diesel	9 VAC 5-80-720C	PM, CO, VOC, SO <sub>2</sub> , NO <sub>x</sub>	150 KW (201 bhp)
GEN0001	Diesel Fuel Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-101	SCH 50 Wt Oil Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-102	Transmission Fluid Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-103	Anti-Freeze Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-104	15W40 Oil Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-105	75W90 storage tank, aluminum, heat-traced	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-106	Freon 134A Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-107	Methanol Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-108	Diesel Fuel Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-201	Purge Solvent Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-202	Paint Waste Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-301	Gasoline storage tank, 550 gal near PC bldg	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-401 – AST-408	Eight 30,000 gallon propane storage tanks	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-501	Diesel Fuel Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy
AST-502	Diesel Fuel Tank	9 VAC 5-80-720B	VOC	VOC < 5 tpy

These insignificant emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

## **CONFIDENTIAL INFORMATION**

No information contained in the permit application or in the specific records required by the permit is considered confidential. However, the specific emission factors of the database used to generate portions of the required records are regarded as confidential, in that the factors reflect proprietary paint and coating formulations. If any material requested by VDEQ, USEPA or another government agency contains information that includes the actual emission factors from the Volvo database, that material should be considered confidential.

## **PUBLIC PARTICIPATION**

A public notice regarding the draft permit was printed in the April 27, 2003, edition of the Roanoke Times, New River Valley Edition. Public comments were accepted from April 28, 2003, through May 28, 2003. No public comments were received. USEPA reviewed this permit with concurrent processing as draft and proposed. The final day for USEPA comments was June 11, 2003, as no public comments were received to require a new proposed version of the permit. No comments were received from USEPA.

## APPENDIX A: NSR/FOP CORRESPONDENCE TABLE

The following table is a modification of the table in the section Emission Unit Applicable Requirements – New Source Review Permit Requirements. This table is ordered corresponding to the NSR permit conditions as an aid to reference the corresponding federal operating permit conditions. The NSR permit follows in Appendix B.

NSR Condition	Title V Condition	Description	VAC Applicable Requirement
3	V-A-2	Types of VOC storage permitted	9 VAC 5-20-80
4	V-A-3	Compliance with NSPS Kb	9 VAC 5-50-410
5	III-A-5	Compliance with NSPS Dc	9 VAC 5-50-410
6	IV-A-1	BACT as design specifications cited for particulate control devices	9 VAC 5-80-10, 9 VAC 5-50-260
7	IV-A-2	BACT as water-based or high solids coatings in certain applications	9 VAC 5-50-260
8	IV-A-3	BACT as water-based primers	9 VAC 5-50-260
9	IV-A-4	BACT as water-based E-coat	9 VAC 5-50-260
10	IV-A-5, IV-B-1	E-Coat oven VOC incinerator with instrument and monitoring requirements	9 VAC 5-80-10, 9 VAC 5-40-140
11	IV-A-6, IV-B-2, IV-B-3	Basecoat Booth #1 VOC incinerator with instrument and monitoring requirements	9 VAC 5-80-10, 9 VAC 5-50-260, 9 VAC 5-170-160
12	IV-A-7, IV-B-4	Basecoat Booth #2 VOC incinerator with instrument and monitoring requirements	9 VAC 5-80-10, 9 VAC 5-50-260, 9 VAC 5-170-160
13	IV-A-8	VOC Content limit (lbs/gal) as BACT for spray booths without VOC controls	9 VAC 5-80-10, 9 VAC 5-50-260, 9 VAC 5-50-180
14	IV-A-9	Minimize cleaning & purging emissions	9 VAC 5-40-4780, 9 VAC 5-40-20
15	IV-A-10	Alternative control procedure	9 VAC 5-170-160
16	IV-B-5	Basecoat Booths particulate control monitoring (pressure differential gauges)	9 VAC 5-80-10, 9 VAC 5-50-20, 9 VAC 5-50-260
17	IV-A-11	Annual VOC throughput limit for coating content	9 VAC 5-80-10, 9 VAC 5-170-160
18	IV-A-12	Monthly VOC throughput limit for coating content	9 VAC 5-50-80, 9 VAC 5-170-160
19	III-A-1	Approved fuels are natural gas & propane	9 VAC 5-80-10
20	III-A-2	Natural gas annual throughput limit	9 VAC 5-80-10
21	IV-A-13	VOC emission limit for painting/coating for all spray booths combined	9 VAC 5-50-260, 9 VAC 5-170-160
22	IV-A-14	Particulate emission limits for spray booths broken down by operation unit	9 VAC 5-50-260, 9 VAC 5-50-30
23	III-A-3	Combustion product emission limits	9 VAC 5-50-260, 9 VAC 5-170-180
24	V-A-1	VOC emission limit for entire facility	9 VAC 5-50-260
25	III-A-4, IV-A-15	Visible emissions limit for ovens, spray booths and incinerators	9 VAC 5-50-80, 9 VAC 5-170-160
26a	IV-C-2	Monthly and annual consumption of VOC from each operational area	9 VAC 5-50-50
26b	IV-C-3	Monthly and annual consumption of VOC from painting/coating processes	9 VAC 5-50-50
26c	V-C-2	Monthly and annual consumption of VOC from miscellaneous sources	9 VAC 5-50-50

NSR Condition	Title V Condition	Description	VAC Applicable Requirement
26d	V-C-3	Monthly and annual consumption of VOC from entire facility	9 VAC 5-50-50
26e	IV-C-4	Monthly and annual consumption of paints and coatings from each operational area and entire facility	9 VAC 5-50-50
26f	IV-C-5	Monthly and annual throughput of trucks for painting and coating	9 VAC 5-50-50
26g	III-C-1a	Monthly and annual consumption of natural gas for entire facility	9 VAC 5-50-50
26h	III-C-1b	Monthly and annual consumption of natural gas for the phosphate system heater	9 VAC 5-50-50, (NSPS Dc)
26i	IV-C-6	Monthly and annual emissions of VOC from painting/coating processes	9 VAC 5-50-50
26j	V-C-4	Monthly and annual emissions of VOC from miscellaneous sources	9 VAC 5-50-50
26k	V-C-5	Monthly and annual emissions of VOC from entire facility	9 VAC 5-50-50
26l	III-C-1c	Monthly and annual emissions from gas and propane combustion for entire facility	9 VAC 5-50-50
26m	IV-C-7	Average lbs VOC per gallon of coatings in spray booths without VOC controls	9 VAC 5-50-50
26n	IV-C-8	Records of pressure differential for particulate scrubbers and spray booths	9 VAC 5-50-50
26o	IV-C-9	Record of VOC concentration in zeolite concentrator exhaust	9 VAC 5-50-50
27	IV-D-2	Stack testing on request for Multi-Tone/ Basecoat Booth # 1 (8PE-001) VOC control system	9 VAC 5-50-30
28	IV-D-3	Stack testing on request for Multi-Tone/ Basecoat Booth # 2 (8PE-002) VOC control system	9 VAC 5-50-30
29	IV-D-4	Stack testing on request for E-Coat Oven VOC incinerator	9 VAC 5-50-30
30	IV-D-5	Stack testing on request for particulate control from any or all spray booths	9 VAC 5-50-30
31	IV-D-6	VEEs on request for opacity from any or all spray booths	9 VAC 5-50-30
32	III-C-1, IV-D-1, V-D-1	Provide test ports at appropriate locations on request	9 VAC 5-50-30
33	NA	Obsolete condition on timely completion	
34	VIII-R	Right of entry	9 VAC 5-170-130
35	V-A-4	Notice of control equipment maintenance	9 VAC 5-20-180
36	VIII-F	Malfunction causing exceedence report	9 VAC 5-20-180
37	V-A-5	Reduction or shutdown to avoid violation	9 VAC 5-20-180
38	V-A-6	Maintenance & operation practice	9 VAC 5-50-20
39	VIII-V	Permit suspension/revocation	9 VAC 5-80-10
40	VIII-U	Change of ownership	9 VAC 5-80-10
41	VIII-O	Registration/update	9 VAC 5-170-60, 9 VAC 5-20-160
42	VIII-T	Permit Copy	9 VAC 5-170-160
43	NA	State toxics limit on lead chromate usage	9 VAC 5-170-160

NSR Condition	Title V Condition	Description	VAC Applicable Requirement
44	NA	State toxics limits for emissions from painting operations	9 VAC 5-50-180
45	NA	State toxics limits for emissions from facility	9 VAC 5-50-180
46a	NA	Consumption by operational area of HAPs with emission limits under state toxics*	9 VAC 5-50-50
46b	NA	Consumption by all painting/coating operations of HAPs with emission limits under state toxics*	9 VAC 5-50-50
46c	NA	Consumption by miscellaneous sources of HAPs with emission limits under state toxics*	9 VAC 5-50-50
46d	NA	Consumption by total plant of HAPs with emission limits under state toxics*	9 VAC 5-50-50
46e	NA	Emissions by all painting/coating operations of all HAPs with emission limits under state toxics*	9 VAC 5-50-50, 9 VAC 5-80-110
46f	NA	Emissions by miscellaneous sources of all HAPs HAPs with emission limits under state toxics*	9 VAC 5-50-50, 9 VAC 5-80-110
46g	NA	Emissions by total plant of all HAPs with emission limits under state toxics*	9 VAC 5-50-50, 9 VAC 5-80-110
47	NA	HAP process malfunction shutdown	9 VAC 5-20-180

\* Title V permit imposes additional record keeping for those HAPs which are not limited under state toxics rules under authority to require records of emissions of all pollutants for which the facility is a major source (9 VAC 5-80-110).

**APPENDIX B: NSR PERMIT DATED February 26, 2003**

The permit, with its own page numbering, follows.